CLAIMS

What is claimed is:

 $\frac{\text{Sub}_{1}}{\text{Ol}_{2}}$

An image display apparatus for displaying multi-slice images corresponding to

- cross-sections of a subject in multiple display areas on a single display screen, the
- 3 apparatus comprising:
- 4 means for deforming a display format of each display area; and
- 5 means for changing the display format of one of the display areas to change a
- 6 relationship between the image in the one display area with an image in a display area.
- 7 adjacent to the one display area.
- 1 2. The image display apparatus of claim 1 further comprising means for overlapping
- 2 adjacent display areas on the single display screen.
- 1 3. The image display apparatus of claim 2 further comprising means for assigning a
- 2 different opacity to each display area.
- 1 4. The image display apparatus of claim 1 further comprising:
- 2 means for assigning a different opacity to each display area; and
- means for arranging each display area with a different opacity on a three-
- 4 dimensional image reconstructed with previously acquired data.
- 1 /5. A method for displaying multi-slice images corresponding to cross-sections of a
- 2 subject in multiple display areas on a single display screen, the apparatus comprising:
- 3 deforming a display format of each display area; and

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- 4 changing the display format of one of the display areas to change a relationship
- 5 between the image in the one display area with an image in a display area adjacent to the
- 6 one display area.
- 1 6. The method of claim 5 further comprising overlapping adjacent display areas on
- 2 the single display screen.
- 1 7. The method of claim 6 further comprising assigning a different opacity to each
- 2 display area.
- 1 8. The method of claim 5 further comprising:
- 2 assigning a different opacity to each display area; and
- arranging each display area with a different opacity on a three-dimensional image
- 4 reconstructed with previously acquired data.
- 1 9/ A computer-readable medium having executable instructions for performing a
- 2 method comprising:
- deforming a display format of each of a plurality of display areas for displaying on
- 4 a single screen, each display area displaying a multi-slice image corresponding to a cross-
- 5 section of a subject; and
- 6 changing the display format of one of the display areas to change a relationship
- between the image in the one display area with an image in a display area adjacent to the
- 8 one display area.

- 1 10, The computer-readable medium of claim 9 having further executable instructions
- 2 comprising overlapping adjacent display areas on the single display screen.
- 1 11. The computer-readable medium of claim 10 having further executable instructions
- 2 comprising assigning a different opacity to each display area.
- 1 12. The computer-readable medium of claim 9 having further executable instructions
- 2 comprising:
- 3 assigning a different opacity to each display area; and
- 4 arranging each display area with a different opacity on a three-dimensional image
- 5 reconstructed with previously acquired data.
- 1 13'. A computer system comprising:
- a processor;
- a memory coupled to the processor through a bus; and
- a display process executed from the memory to cause the processor to deform a
- 5 display format of each of a plurality of display areas and to change the display format of
- 6 one of the display areas each display area, wherein the plurality of display areas are
- 7 operable for displaying on a single display screen with each display area displaying a
- 8 multi-slice image corresponding to a cross-section of a subject.
- 1 14. The computer system of claim 13, wherein the display process further causes the
- 2 processor to overlap adjacent display areas for displaying on the single display screen.

- 1 15. The computer system of claim 14, wherein the display process further causes the
- 2 processor to assign a different opacity to each display area.
- 1 16. The computer system of claim 13, wherein the display process further causes the
- 2 processor to assign a different opacity to each display area and to arrange each display
- 3 area with a different opacity on a three-dimensional image reconstructed with previously
- 4 acquired data.